What is claimed:

1. A method for forming an air bearing surface on a slider, comprising,
providing a silicon slider body;
forming at least one trench in a surface of the silicon body; and
forming a structure selected from the group consisting of a carbide structure and a nitride structure in the at least one trench.

2. A method as in claim 1, wherein the structure comprises a carbide structure.

3. A method as in claim 1, further comprising forming at least one of a read element and a write element on the surface after forming the structure.

4. A method as in claim 1, further comprising forming a carbon layer over at least a portion of the silicon body on the surface of the slider.

5. A method as in claim 1, further comprising forming the trench by etching a portion of the silicon body.

6. A method as in claim 2, further comprising forming a layer between the silicon body and the carbide structure.

7. A method as in claim 6, wherein the layer comprises a material comprising titanium.

8. A method as in claim 6, wherein the layer comprises a material that improves adhesion between the carbide and the silicon.

9. A method as in claim 2, wherein the carbide structure is formed by a process comprising:

filling the trench in the silicon body with a metal carbide and anhydrous metal chloride material;

heating the silicon body so that the metal carbide and anhydrous metal chloride material becomes a melt;

after the heating the silicon body, cooling the silicon body to produce a product material from metal carbide and anhydrous metal chloride material; and

removing chloride material formed from the product material.

10. A method as in claim 9, further comprising, after the heating the silicon body so that the metal carbide and anhydrous metal chloride material becomes a melt, annealing the silicon body for a predetermined time period.

11. A method as in claim 9, wherein removing chloride material comprises rinsing the surface of the material with at least one liquid selected from the group consisting of water and methanol to remove the chloride material.

12. A method as in claim 9, further comprising planarizing the carbide using a method selected from the group consisting of etching and polishing.

13. A method as in claim 12, further comprising etching the silicon slider body so that the carbide extends outward from the etched silicon slider body.

14. A method as in claim 9, wherein the heating the silicon body comprises heating the metal carbide and anhydrous metal chloride material to a temperature of at least 450°C.

15. A method as in claim 1, wherein the structure comprises a nitride structure.

16. A method for forming a slider comprising:

forming at least one trench into a silicon body;

forming an air bearing surface pad structure in the trench that extends to a position at or above the silicon body; and

forming a read/write head on the silicon body after forming the air bearing surface pad structure.

17. A method as in claim 16, wherein the air bearing surface pad structure comprises a material selected from the group consisting of a carbide material and a nitride material.

18. A method as in claim 16, further comprising:

forming at least one groove in the silicon body extending from a first position at or adjacent to the read/write head to second position at or adjacent to an edge of the slider;

forming an insulating layer in the groove; and

forming a conducting layer on the insulating layer in the groove to provide an electrical path between the read/write head and the edge of the slider.

19. A method as in claim 16, wherein the silicon slider body is formed from a material consisting of single crystal silicon.

20. A method as in claim 16, wherein the read/write structure is formed to include an atomic force microscopy tip.

21. A method for processing a slider, comprising:

forming at least one trench in a silicon slider body;

depositing precursor materials in the at least one trench;

heating the precursor materials to form a product including a metal carbide and a metal chloride; and

removing the metal chloride.

22. A method as in claim 21, further comprising forming a layer in the at least one trench prior to the depositing precursor materials in the trench.

23. A method as in claim 21, further comprising depositing the precursor materials on a surface of the silicon slider body adjacent to the at least one trench and planarizing the metal carbide so that the metal carbide in the at least one trench is planarized to a level identical to that of the surface of the silicon slider body adjacent to the at least one trench.

24. A method as in claim 23, further comprising, after the planarizing the metal carbide, etching the surface of the silicon slider body adjacent to the at least one trench so that the metal carbide in the at least one trench extends outward relative to the etched surface of the silicon slider body adjacent to the at least one trench.

25. A method as in claim 21, wherein the precursor materials are selected so that the metal carbide comprises a carbide selected from the group consisting of titanium carbide, zirconium carbide, vanadium carbide, tungsten carbide, and molybdenum carbide.

26. A method as in claim 21, wherein the silicon slider body is formed from a material consisting of single crystal silicon.

27. A method as in claim 24, further comprising forming a carbon layer on at least part of the etched surface of the silicon slider body.

28. A method as in claim 24, further comprising forming a read/write structure after the etching the surface of the silicon slider body adjacent to the at least one trench.

29. A method as in claim 28, wherein the read/write structure is formed to include an atomic force microscopy tip.